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By: Deborah Beckmeyer

DOCKET No.: 5525-0015.21

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF:

Stephen C. Macev

SERIAL No.: 09/280,270

FILED: March 29, 1999

FOR: **DNA Sequencing by Parallel
Oligonucleotide Extensions**

EXAMINER: Frank Lu

ART UNIT: 1655

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TECH CENTER 1600/2900

Amendment under 37 CFR §1.111

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

In response to the Office action mailed August 16, 2000 in the above-identified application, please amend the application as indicated below.

In the Claims:

Please amend claims 20-22, 24, 27, 28 and 30, cancel claims 26 and 31, and add claim 32, as follows:

20. (Amended) A kit for DNA sequence analysis, the kit comprising one or more sets of oligonucleotide probes wherein

- (i) each probe set contains at least 50 different-sequence, single-stranded oligonucleotide[s] probes,
 - (ii) the oligonucleotide[s] probes have lengths up to 12 nucleotides,
 - (iii) each probe set is a subset of a mixture comprising oligonucleotides of all possible sequences of a selected length, and
 - (iv) [(iii) in each set, the different-sequence, single-stranded oligonucleotides] the probes within [that] each probe set [have substantially the same free energy of duplex formation] are from the same stringency class,
- wherein a stringency class is determined by (a) ordering a set of oligonucleotides of all possible